

Counterpoint: The science is clear: Protect our wild rice

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The Earth is not flat, there is no tooth fairy and sulfate limits are required to protect natural stands of wild rice.

A recent commentary on wild rice and pollution from an official of Minnesota Power ("For sulfate limits, stick to the science," Jan. 29) respected neither sulfate limits nor science. In order to defend a major paying customer for its coal-generated power, Minnesota Power misrepresented the impacts of decades of sulfate pollution from the U.S. Steel Minntac tailings disposal facility.

The evidence is clear that sulfate pollution from the Minntac facility has devastated downstream beds of natural wild rice in Minnesota's Little Sandy and Sandy lakes. There are decades of discharge-monitoring reports that document how sulfate pollution from the Minntac tailings facility (there is no other nearby sulfate source) has exceeded Minnesota's water quality standard by more than an order of magnitude.

Wild rice is Minnesota's state grain, an important tribal resource, and a vital plant to support aquatic life, ducks and mammals. The state has permanently lost tens of thousands of acres of this resource. Resource managers believe wild rice is in crisis.

Four years ago, with the support of the mining industry, some members of the Minnesota Legislature tried to eliminate the state's water quality standard that protects wild rice from sulfate pollution. However, the U.S. Environmental Protection Agency (EPA) stepped in to safeguard our water quality. The EPA explained that it is illegal under the federal Clean Water Act to weaken or remove a water quality standard unless there is good science showing the standard is not needed.

Minnesota then spent over \$1 million to provide rigorous scientific research on whether our sulfate limit of 10 milligrams per liter (mg/L) is needed to protect natural stands of wild rice. State regulators hired the best scientists from the University of Minnesota and made sure that they could do their research objectively.

Based on this recent, targeted scientific research, the Minnesota Pollution Control Agency (MPCA) reached the following conclusions in February 2014:

- Sulfate is not directly toxic to wild rice. However, sulfate in the surface water can be converted by bacteria to sulfide in the



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rooting zone of wild rice.

- Sulfide is toxic to wild rice.
- The 10 mg/L sulfate standard is needed and reasonable to protect wild rice production from sulfate-driven sulfide toxicity.
- The 10 mg/L wild rice sulfate standard should continue to apply to both lakes and streams

To add another layer of scientific protection from special-interest pressure to deregulate pollution, the MPCA had a panel of seven scientists from around the world review the wild rice sulfate research in detail. These scientists issued a final report in September 2014.

Although the wild rice peer review panel asked for more statistics to tease out sulfate interactions in the environment and told the MPCA that sulfide may be even more toxic than the agency had thought, the panel found Minnesota's research and regulation limiting sulfate to protect wild rice scientifically valid. The peer reviewers explained that, just as one must limit mercury to prevent the formation of toxic methylmercury, "sulfide is harmful, but sulfate is what has to be regulated."

Powerful interests can claim otherwise, but the scientific evidence shows that sulfate pollution must be controlled to protect natural wild rice.

Thankfully, if one believes in science, control over sulfate pollution is possible. Technology to treat polluted mine discharge has been used extensively across the United States. Wild rice and aquatic habitats can be protected if Minnesota regulators require water quality treatment at the Minntac tailings facility and other pollution sources.

We have the tools in our hands to prevent environmental degradation; now all we need is the courage to stick with the science.

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